(No Model.) 2 Sheets—Sheet 1.

C. L. TRAVIS.

CARPET SWEEPER.

No. 260,257. Patented June 27, 1882.

Fig. 1

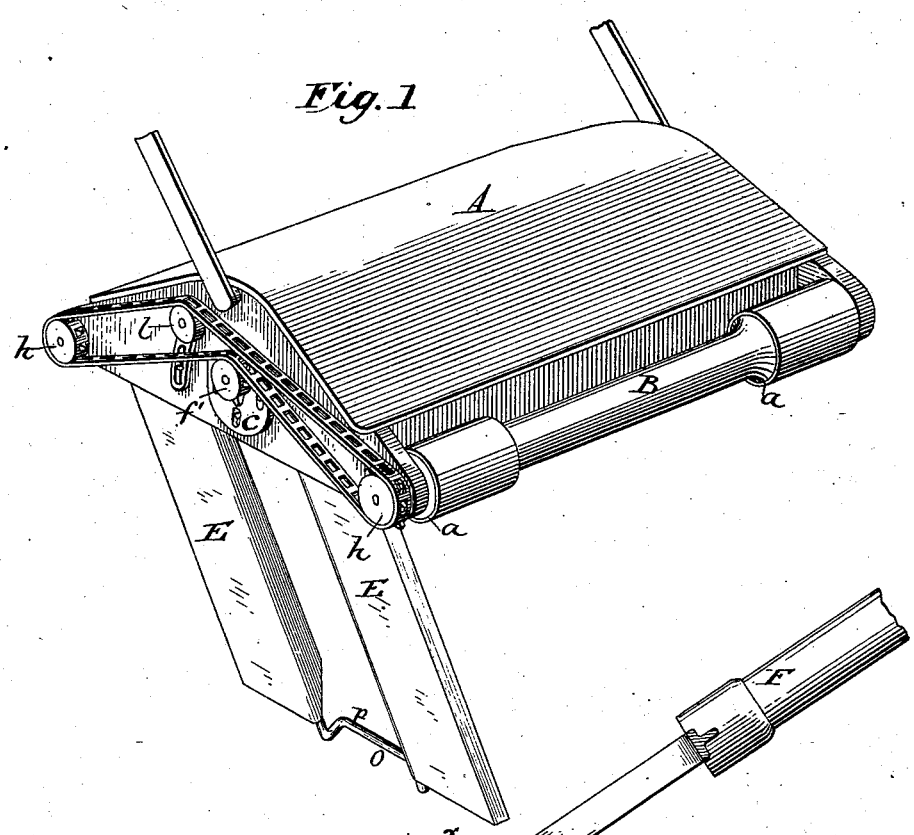
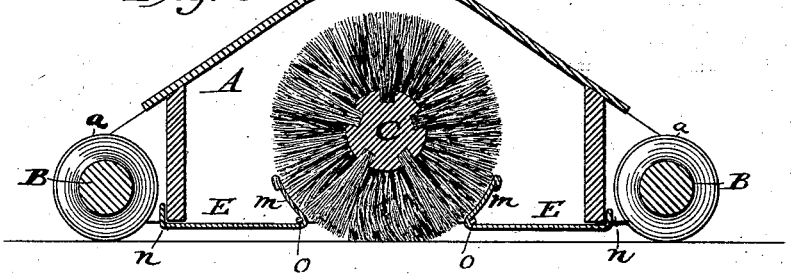


Fig. 2



Attest.

Sidney P. Hollingsworth

Wm H. Shipley

Inventor.

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By his Atty.

Philip T. Dodge.

(No Model.) 2 Sheets—Sheet 2.

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CARPET SWEEPER.

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Fig. 3.

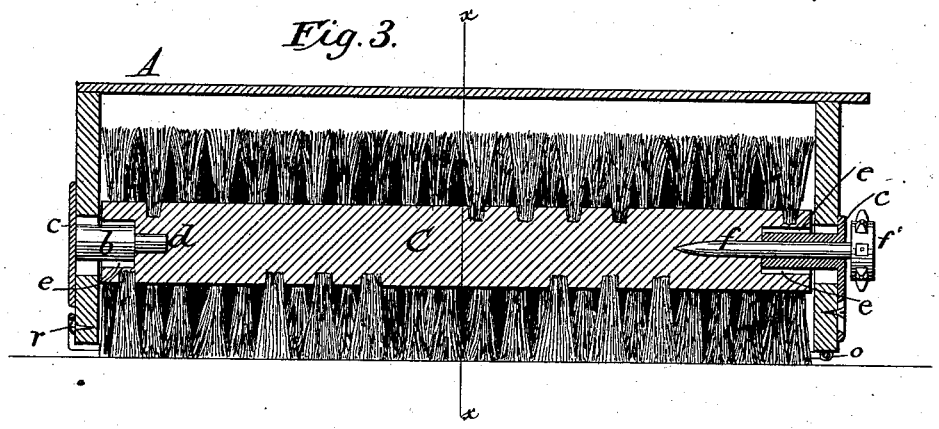


Fig. 4

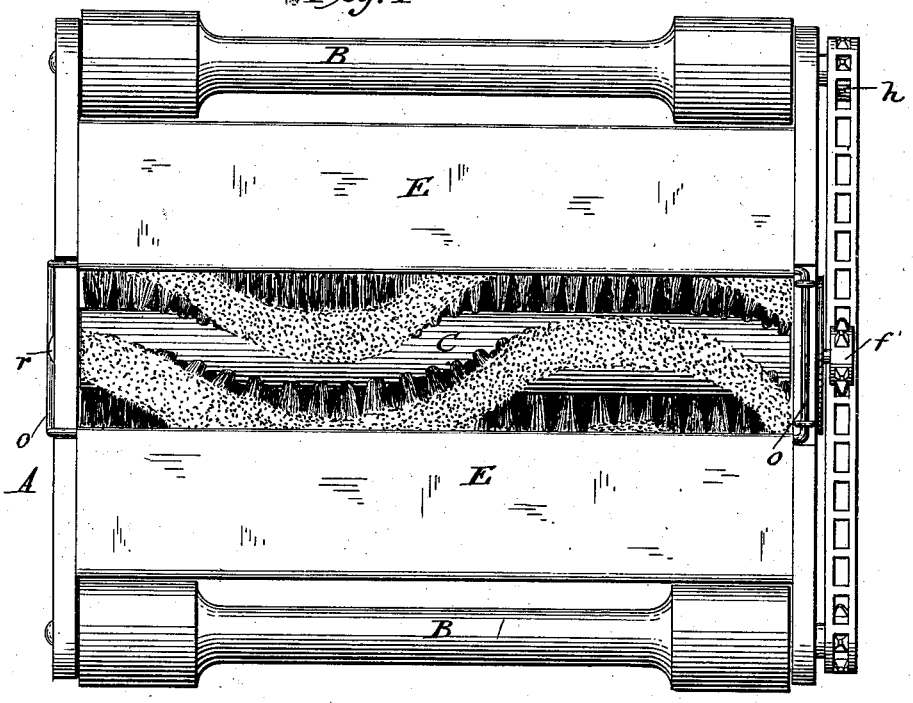
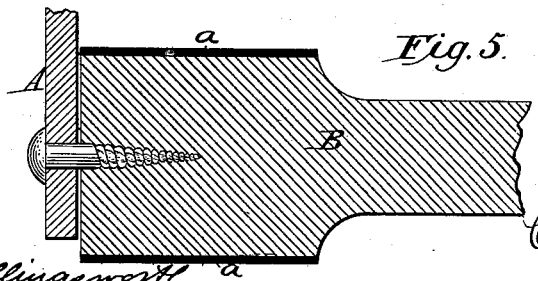


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES L. TRAVIS, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO THE MINNEAPOLIS GRAIN BINDER COMPANY, OF SAME PLACE.

CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 260,257, dated June 27, 1882.

Application filed April 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. TRAVIS, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain Improvements in Carpet-Sweepers, of which the following is a specification.

This invention relates to that class of carpet sweepers which consist of a body containing a rotary brush and dust-receiving pans and sustained upon traction-rolls which are connected by a belt with the brush for the purpose of imparting motion thereto.

The invention consists in various features of construction hereinafter described in detail, but more particularly to the attachment of the dust-receiving pans to the body in such manner that they may swing downward at right angles thereto for the discharge of the accumulated dust and dirt, the arrangement being such that the pans may be opened and closed by the foot of the operator; in the peculiar formation of the pans to embrace the edges of the body with a yielding pressure; in the peculiar constructions of the journals for supporting the roll, and in minor features.

Referring to the accompanying drawings, Figure 1 is a perspective view of my sweeper with the pans open for the discharge of the dust therefrom. Fig. 2 is a vertical cross-section through the machine on the line *x x*, Fig. 3. Fig. 3 is a longitudinal vertical section through the machine on the line *y y*, Fig. 2. Fig. 4 is a bottom plan view of the sweeper. Fig. 5 is a longitudinal vertical section through one end of one of the traction-rolls.

Referring to the drawings, A represents the body of the sweeper, made in the form of a box open on the lower side only.

B B represent the two sustaining-rolls, mounted lengthwise on the outer sides of the body, their ends being supported by pivots or journals passing through the projecting end pieces of the body, as shown. These rolls, which are preferably made of wood, each in a single piece, have their ends for a length of about two inches made of much larger diameter than the middle portion and provided with a thin covering of soft rubber, as shown at *a*. In practice it is found that by thus constructing the rolls so that they have a bearing upon the floor at the ends only they are caused to take hold more firmly and effectually, and to drive the brush with much greater certainty than rolls which bear throughout their entire length upon the floor.

C represents the rotary cylindrical brush, mounted lengthwise within the body and sustained at its two ends by horizontal journals *b*, the journals being formed upon the outside supporting-plates, *c*, and extended through vertical slots in the ends of the body. The plates *c* are slotted vertically, as shown in Fig. 1, and attached to the body by means of screws which admit of their being raised and lowered in order to elevate or depress the brush, as may be required.

It will be observed that the journals *b* are non-rotating, that they are seated in holes or openings formed in the ends of the brush-body, and that the brush revolves around them. The journal *b* at one end of the roll is provided at the inner end with a neck or prolongation, *d*, of reduced diameter, fitted closely within the roll and designed as the main support therefor. The use of this neck admits of the end of the roll being bored out to leave an annular space, *e*, around the body *b* of the journal, the more effectually to prevent the winding of hair or other fibers therein. At the opposite end of the roll the journal is made of tubular form to admit the passage of the central driving shaft or spindle, *f*, which is seated firmly in the end of the roll. This shaft serves as the support for the roll, permitting an annular space, *e*, to be left around the outside of the journal, in the same manner and for the same purpose as that at the opposite side.

To the outer end of the driving-shaft *f*, I secure a sprocket-wheel to receive the driving-belt. The arrangement of this belt is plainly represented in Fig. 1, in which it will be seen that the belt passes around the sprocket-wheels *h*, applied to the journals of the traction-rolls, thence over the sprocket-wheel *f'* on the outer end of the brush, and upward over a tightening pulley, *l*, so that the power of both rolls is applied to drive the brush. The pulley *l* is mounted on a vertical slotted arm secured to the body by means of screws, in order that it may be adjusted vertically to

tighten the belt and to compensate for any change in tension that may be caused by the vertical adjustment of the brush.

The belt is constructed of soft pliable leather, having rectangular openings punched therein to receive the teeth of the sprocket-wheels. The driving-belt thus constructed is peculiarly adapted for use with the sweeper, being light and noiseless, and operating, when subjected to dust and dirt, noiselessly and without the necessity of its being lubricated. The belt overcomes the difficulties encountered from the slipping of the ordinary round or flat belt on the one hand, and on the other hand avoids the noise incident to the use of metallic chains, and also the soiling of the carpet by the lubricants required when metallic chains are used.

E E represent the two dust-collecting pans arranged in the bottom of the body on opposite sides of the brush. Each of these pans is provided at the inner side with an upturned edge, *m*, fitting closely against the surface of the brush, and is also provided on the outer edge with an upturned lip, *n*, designed to engage over and bear with a spring action against the lower edge of the body. The two pans are sustained by means of a wire frame, *o*, which extends along their inner edges and connects them at two ends. At one end the wire frame is seated in a recess in the lower edge of the frame and secured by the staples or equivalent fastenings, as shown at *o*, to serve as a hinge whereby both pans are connected to the body. At the opposite end the frame is turned upward, as shown at *p*, to rest against the outer surface of the body and engage over a stud or catch, *r*, thereon to serve as a means of fastening the pans in a closed position. The parts are made of such form that when the pans are closed to their place and secured by the locking device mentioned they will fit closely against the end of said frame.

It will be observed that the pans are made without raised flanges, or, in other words, with open ends, their heads being closed by means of the body when they are seated therein.

The body is provided, as usual, with a swinging bail provided with a handle, F, by means of which the attendant, standing at the side of the machine, may propel the same in either direction.

When it is required to discharge the accumulated dust from the machine it is only necessary for the attendant to place her toe upon the projecting catch *p* and then raise the body by means of the handle, whereupon both pans will be unlocked and left free to swing downward, as shown in Fig. 1, the dust and dirt being discharged freely from the ends of the pans. Upon again raising the pans from the floor and turning the body down thereon the parts will automatically resume their operative position.

Having thus described my invention, what I claim is—

1. In a carpet-sweeper, the combination of the traveling body, a rotary brush therein, and dust-collecting pans hinged to the body at one end and arranged to swing downward endwise therefrom, substantially as described and shown.

2. In a carpet-sweeper, the combination of the traveling body, the rotary brush, and the dust-collecting pans, hinged at one end to the body, and provided with a fastening device adapted to be disengaged by the foot, substantially as described and shown.

3. In combination with the traveling body A, the brush C therein, the dust-collecting pans sustained by means of the wire frame, hinged at one end to the body and provided at the opposite end with the extension *p*, substantially as shown.

4. In combination with the sweeper-body, the wire frame *o*, hinged thereto, and the two metal pans secured at their inner edges to said frame, and provided with the upturned edges adapted and arranged to bear, under the action of the frame, with a spring-pressure against the under edges of the body, as set forth.

5. The combination of the body, the non-rotating journals, and the rotary brush, supported as shown, with an annular space, *e*, around the journals.

6. In combination with the body and the rotary brush, the tubular journals *b*, surrounded by the annular space *e*, and the driving-shaft extended through one of said journals and seated rigidly in the roll.

CHARLES L. TRAVIS.

Witnesses:
C. A. MITCHELL,
WM. P. ROBERTS.